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The Air Force Stand on "Flying Saucers" — as stated by
CIA, in a briefing on 22 August 1952

I. The Air Force has primary responsibility for investigating "flying saucers". The unit concerned with these investigations is a part of the Air Technical Intelligence Center at Dayton, Ohio, and consists of three officers (a Captain in charge) and two civilians. They receive reports of sightings, analyze and attempt to explain them. A standard reporting form has been prepared which is used on a world-wide basis. The Air Force Office of Special Investigations checks into each sighting attempting to determine its authenticity and the reliability of the observer.

II. (A) The Air Force officially denies that "flying saucers" are:

- (1) U.S. secret weapons
- (2) Soviet secret weapons
- (3) Extra-terrestrial visitors

(B) It is believed that all sightings of "flying saucers" are:

- (1) Well known objects such as balloons (over 4000 are released daily in the U.S.), aircraft, meteors, clouds, etc. not recognized as such by the observer.
- (2) Phenomena of the atmosphere which are at present poorly understood, e.g., refractions and reflections caused by temperature inversions, ionization phenomena, ball lightning, etc.

III. Not a shred of evidence exists to substantiate the belief that "flying saucers" are material objects not falling into category II(B)(1) above.

IV. A study of "flying saucer" sightings on a geographical basis showed them to be more frequent in the vicinity of atomic energy installations (which is explained by the greater security consciousness of persons in those areas). The by-products of atomic fission may in some way act catalytically to produce "flying saucers" has not been disproved. The greatest number of sightings has been made at or near Dayton, Ohio where the investigations are going on.

V. Of the thousands of "flying saucers" sighted of which there are records, the Air Force says that 70% have been explained by either II(B)(1) or II(B)(2) above, 2% have been exposed as hoaxes and the remaining 28% have not been explained primarily because of the vague descriptions given by observers.

VI. The Air Force is mostly interested in the "saucer" problem because of its psychological warfare implications. In reviewing publications designed for Soviet consumption, there has not been a single reference to "flying saucers". On the other hand, several "saucer" societies in the United States have been investigating key members of some of these societies which have been instrumental in keeping the "flying saucer" craze before the public have been exposed as being of doubtful loyalty. Furthermore the societies, in some cases, are financed by an unknown source. The Air Force realizes that a public panic caused by the "flying saucer" scare would be a serious liability in the event of air attacks by an enemy. Air

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Defense could not operate effectively if the air force were constantly called upon to intercept airways which persons had mistaken for enemy aircraft.

ARG

19 August 1952

The purpose of this presentation is to report the findings of the COM Study Group as to the implications of the Flying Saucer problem.

I will start with a review of what we have done and a short history of the subject — Dr. Bigg will outline the Air Force effort.

will go into the explanations of sightings — I will give you our conclusions.

Our group reviewed available intelligence, official reports, press and magazine coverage and the main popular books. Indexes of the Soviet press were scanned. We spent a day at Wright Field with the officers conducting the Air Force study, and finally we took the problem to a group of our own consultants.

The Saucer furore in this country started in June 1947 with a report of nine discs flying in formation past Mount Rainier at an estimated speed of 1000 miles per hour. This was followed immediately by a continuing and increasing flood of reports over the months.

Therefore, in 1948, Air Force initiated Project Saucer to study

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the phenomena and in December 1947 released sections of its secret report to the press. The conclusion was that the sightings started from three causes:

1. Mass hysteria
2. Hallucination and hoax
3. Misinterpretation of known objects

This satisfied much of the public but not certain sensational writers. The resulting highly speculative books and magazine articles combined with increasing reports of sightings built up such a resurgence of public interest that Air Force, early in 1951, reopened its study, instituted a world-wide reporting system, and alerted its bases to intercept the unidentified objects. General Sanford gave their interim conclusions in his recent press conference. These were that analysis of the cases showed "no pattern of anything consistent with any source to the United States"; that the recent Washington reports were probably due to "temperature inversions"; and that the unexplained sightings could not have resulted from any experiments or tests conducted by the United States.

Search for the mystery.

In summarizing this discussion, I would restate that on three of the main theories in explanation of these phenomena, — a US development, a Russian development, and space ships — the evidence either of fact or of logic is so strongly against them that they warrant at present no more than speculative consideration. However, it is important that there are many who believe in them and will continue to do so in spite of any official pronouncement which may be made. This whole affair has demonstrated that there is a fair proportion of our population which is mentally conditioned to acceptance of the incredible. Thus we arrive at two danger points which, in a situation of international tension, seem to have National Security implications.

Earlier, we mentioned our search of Soviet press. AFIC made a similar search. With world-wide sightings reported, we have found not one report or comment, even satirical, in the Russian press. This could result only from an official policy decision and of course raises the question of why and of whether or not these sightings could be used from a psychological warfare point of view either offensively or defensively. Air Force is aware of this and has investigated a number of the

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civilian groups that have sprung up to follow the subject. One -- the Civilian Sensor Committee in California has substantial funds, strongly influences the editorial policy of a number of newspapers and has leaders whose connections may be questionable. Air Force is watching this organization because of its power to touch off mass hysteria and panic. Perhaps we, from an intelligence point of view, should watch for any indication of Russian efforts to capitalize upon this present American credibility.

Of even greater concern is the second danger. Our air warning system will undoubtedly always depend upon a combination of radar scanning and visual observation. To give Russia the capability of delivering an air attack against us, yet at any given moment now, there may be current a dozen official unidentified sightings plus many unofficial. At the moment of attack, how will we, on an instant basis, distinguish hardware from phantom? The answer, of course, is that until far greater

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knowledge is advised of the causes back of the sightings — the little understood phenomena Mr. Collier has described — to will run the increasing risk of false alerts and the even greater danger of taking the real as false. This is primarily an operational research problem but as long as it exists it will have intelligence implications because of its bearing on air vulnerability.

The purpose in this survey has been to examine what is being done and make some assessment of its validity. The Air Force study is valid. On a case by case basis, the great bulk of the sightings have been and will continue to be explained — but the limited case approach will never solve this second real problem — positive identification.

As to what should be done, we propose to discuss the research problem with the Research and Development Board and to pass on to Air Force an offer from N.I.T. to assist in a study of some of the fundamentals. We suggest that the psychological possibilities both for and against us should be investigated. From an intelligence point of view, OI has been and will continue watching Russian research and development in the scientific fields involved.

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DRAFT

15 August 1952

In the next few minutes, I intend to touch briefly upon the official explanations of the great majority of sightings of unidentified flying objects (or UFO's) and mention possible phenomena which may account for some of the open cases.

Before we elaborate upon the current explanations I would like you to keep in mind certain facts which are generally common to all reports.

First, is the earnestness of those making reports. These people are certain that they have seen something.

Secondly, objects sighted almost always are reported to be against the sky thereby providing no point of reference.

Thirdly, without a reference point, a valid estimation of size, speed, distance or relative motion is virtually impossible.

Finally, no debris or material evidence has ever been recovered following an unexplained sighting.

In each case of reported sightings exists the personal element. This is the combined effect of psychological and physiological factors which

individually or together may have outstanding importance in the accuracy of a person's report. These factors generally cannot be determined adequately.

The psychological factors are:

Mental conditioning by newspaper stories of earlier reported sightings.

Individual emotional response with respect to the unknown.

Desire for publicity resulting in "embroidering" of facts or complot fabrication.

Emotion of chase of interceptor pilots.

The major physiological factors are:

General physical condition of the person at time of sighting;

conditions of fatigue, anemia.

Existence and extent of eye strain immediately preceding sighting.

Insufficient night adaptation.

Now let us take up the explanations which have been used to account for well over a thousand cases. Under the category of: "Misinterpretation of identifiable objects," ATIC feels that the most prevalent misinterpretations have been: free balloons, aircraft, astronomical bodies, atmospheric

phenomena, instrument errors and windblown objects.

There are two types of high altitude balloons, radiosonde and the Navy Skyhook. They may reach altitudes as high as 20 miles. Although both types are tracked and plotted for some distance, there generally is no accurate confirmation of destruction. Consequently, because of the large number released daily by the weather services and research groups in the U.S., it is possible that they might appear over almost any geographic location. The longevity of the gas bags is not known but is believed to be possibly weeks. Night-launched balloons carry a bright light to facilitate tracking. Many others have radar-reflecting panels.

The Mantell case, referred to by Mr. Strong, has been explained as a misinterpretation of a Navy Skyhook balloon. This was in January 1947. There were three interceptor aircraft. One, piloted by Capt. Thomas Mantell, radioed in that he was going to climb to 20,000 feet in an attempt to close in. His rather wild report that the object was "tremendous" and his subsequent crash are laid to the effects of enoxia since his plane carried no oxygen equipment.

A case under known conditions occurred some months ago at Wright Field.

which illustrates the fact that objects at high altitudes may be in sharp illumination even one or two hours before dawn or after. This case also points up interesting psychological factors.

The time was near dusk. Captain Ruppelt was called out to witness a sighting of three red lights in the sky. Even through binoculars he could not determine their nature. An F-94 interceptor climbed to 43,000 feet. At this altitude the pilot could see clearly that the objects were a cluster of three Skyhook balloons still well above him, sailing an even course across the sky. By this time, telephone reports had started to come in. The objects were described as violently maneuvering "saucers" of various shapes and colors. Even "looping" maneuvers were reported. The medical staff at Wright Field, including the senior psychologist, witnessed the sighting. The next day this staff turned in a report stating that, despite the official statement that these objects were balloons, they felt that this was in error and that the sighting must have been of some other unknown origin.

Probably the second most common misinterpretation is that of conventional aircraft.

In the daytime, aircraft, particularly those that are unpainted, can give extremely brilliant reflections of sunlight. An interesting case under known conditions is one which occurred last year in Maryland.

A group of aircraft design engineers went into the country to witness tests of their own jet airplane. The three test aircraft, with unpainted wings and red fuselages, passed directly overhead. All engineers agreed that if they had not known what the objects were, and since they could not observe the silver wings against the sky, they would have reported the red fuselages as flaming trails and they would have imagined objects emitting them.

At nighttime the possibility for misinterpretation of aircraft increases. First, there are the dusk and dawn illuminations already mentioned. Similarly, misinterpretations have been made of running lights or reflections of aircraft in clouds. There are a number of reports of cylindrical objects with square tails or having lighted "portholes" which have been explained as distorted images of conventional aircraft profiles on clouds of ice crystals. Some time ago a pulsating bright yellow light was reported moving through the sky near Pittsburgh, Pennsylvania. For months this report was relegated to the "unexplained" file. A few weeks ago in Washington a man

who was familiar with this report saw an anti-collision light installation on a Capitol Airlines airplane. This new safety device, a light mounted on the nose of the airplane, oscillates back and forth laterally similar to those installed on some ambulances and police cars. A check with Capital Airlines revealed that an airplane fitted with such a light had "checked in" while flying near Pittsburgh at the exact time and place of the reporting sighting.

Let us turn now to astronomical phenomena. In the daytime some planets, particularly Venus, can be seen clearly as a bright white object, even at high noon under certain conditions. At night, meteors of various varieties have been mistaken for maneuvering lights. The luminous meteor trail of ionized gas has been picked up by radar and at times misunderstood. This ionized trail may remain visible to the eye for as long as one hour.

Natural phenomena in the Earth's atmosphere have caused many misinterpretations. High altitude "jet streams" traveling at high velocities, temperature inversions and conditions of turbulent mixing of air of greatly different temperatures and densities exist and are not charted. They account for optical as well as radar aberrations in a number of cases. In one case

of a ground radar sighting in Maryland the pilot of an interceptor aircraft, with his AI gear "locked on" a "blip", found himself on a steeply sloping downwards course at low altitude. This occurred three times indicating that the target was on the ground and that the course of the radar beam had been distorted. It should be noted that radar anomalies both internal and external in nature still exist in disturbing numbers. The ability of a radar observer to accurately determine the validity of "blips" on his scope is directly proportional to the length and breadth of his experience.

Cloud effects have affected the accuracy of a number of sightings. Rapidly crudding clouds lend an apparent motion to a fixed body. The moon or a bright planet shining through a cloud hole at times does appear as a "flashing object." Other "explainable" misinterpretations which are known to have accounted for reports of sightings include a wide variety of objects. Windblown objects is one. Such an incident was reported by the U.S. Consul at Merida, Yucatan, Mexico. Here is his actual report:

At about 2:00 p.m. last Sunday, I observed a silvery, shining, disc-like object floating in the clear, blue sky almost directly

overhead, travelling in a northwesterly direction. I believed that the object was a flying disc and was about to run to the house and fetch my camera when I noticed that the object was below the level of some vultures maneuvering at a great height. This proved to me that the disc-like object was considerably smaller than a vulture. During the course of two hours I saw a total of three of these objects, all going in the same direction, but at times appearing to be stationary. Later in the afternoon I found one of these 'discs' on my front lawn. It was a seed enclosed in a fluffy mass of silken fiber Had it not been for the soaring birds and my curiosity, I would undoubtedly have reported that I had seen several 'flying discs'. . . . I am enclosing the 'flying disc' which I captured...in my front yard."

Another misinterpretation is that of searchlights on clouds which has been the cause of several reports of sightings as in the recent case described by the Secretary of Defense. Finally, there is a case which occurred at Branchman's Flat, Nevada.

"Blips" in formation were picked up on the radar scope. They were

reported to be traveling at terrific speed at 30,000 feet. It happened that the reporting station had a searchlight and it was turned on in the direction of the radar sighting. It was immediately discovered that the objects were Canadian geese flying at 300 feet altitude.

The above explanations are believed by ATIC to account for some 80% of the sightings reported. They feel that the remaining 20% might be reducible to 10% were it not for these reasons:

Insufficient information reported.

Incorrect information unwittingly or purposely reported.

Insufficient or total lack of subsequent investigation of details.

This still leaves ATIC with a possible 10% of sightings for which there is no available explanation.

Considering that the remaining cases might have been caused by little understood natural phenomena, the OSI Panel conferred at length with three of our consultants in Boston. These men are outstanding in the fields of geophysics, electronics and chemistry. They emphasized to us that there

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are many scientific frontiers which have as yet been little explored or charted. In these areas occur phenomena which may account for optical or electronic aberrations as well as for things actually seen. They listed three categories: atmospherics, ionization, and extra-terrestrial phenomena. They suggested also that products of nuclear fission might have some effect upon these.

In the field of atmospherics would be the temperature inversions stressed by General Sanford. This phenomenon exists but the exact mechanics of its cause, its nature and manner of dissipation are not well understood. Neither is its effect upon electromagnetic and light beams causing their refraction or reflection. Little is known of clouds of ice crystals which exist at altitudes to 60,000 feet. Studies of the winds and the physical and chemical properties of air at very high altitudes have only recently coincided with the availability of such agents at high altitude balloons and research rockets.

The second category was ionization. The Heaviside (or "E") layer of ionization, the "F" layer above it, and their relation to radio transmission

were thought ten years ago to be fairly well understood. Within the past year, however, the whole concept of the "F" layer has been changed. It has been discovered that it splits sometimes into two layers of ionization known as F-1 and F-2. Recent tests utilizing these layers have shown it possible to transmit as far as 1,000 miles using certain VHF frequencies. This is totally opposed to the previous well accepted opinion that maximum VHF transmission distance was limited to "line of sight."

Clouds of ice crystals become luminous under certain conditions of ionization. The factors affecting the way in which the electrostatic charge on the earth is continuously rejuvenated by thunderstorm lightning are obscure. Ball lightning, a luminous phenomenon which has been reported for centuries, appears in various colors but its nature is not known. St. Elmo's fire, corona discharge and Aurora Borealis are catalogued in a variety of forms but their exact nature is unknown. The movement of vortices of smoke particles, clouds of moisture and ice crystals will cause changes in electrostatic potential and may be affected by the earth's magnetic field.

material tossed aloft could appreciably affect atmospheric phenomena.

For instance, the cosmic and gamma natural radiation which pours in daily from outer space is many thousands of times greater than the radiation produced by atomic bomb blasts.

This list could be extended at length. Suffice to say, our ignorance of the nature and controlling factors of all of the above is immense.

Effects of interaction between these natural phenomena and radioactive material in the air can only be conjectured. The appearance of unusual optical or radar sightings caused by these phenomena is possible. Their occurrence cannot be predicted.

There is some strength to the hypothesis that many of the unexplained sightings of UO's may be electromagnetic or electrostatic in character.

Factors supporting this hypothesis are:

Absence of sound, although apparently moving rapidly in the atmosphere.

Phenomena are apparently affected by shock waves or electromagnetic radiation of aircraft.

Reports of erratic operation of various kinds of instruments in

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the vicinity of sightings.

Sightings of UFO's reported at Los Alamos and Oak Ridge, at a time when the background radiation count had risen inexplicably.

Here we run out of even "blue yonder" explanations that might be tenable, and, we still are left with numbers of incredible reports from credible observers.

14 August 1952

FLYING SAUCERS

During the past weeks, with the phenomenal increase in the number of Flying Saucer reports there has been a tremendous stimulation of both public and official interest in the subject. Requests for information have poured in on the Air Force, including an official query from the White House. Finally, on July 29, General Sauford held a press conference in which he stated, that analysis showed "no pattern of anything remotely consistent with any menace to the United States;" that recent Washington sightings were possibly due to "temperature inversions," others to ionized clouds, ice formations, etc.; that instrumentation would be emphasized henceforth in the Air Force study. He emphatically stated that the unexplained sightings could not have resulted from any experiments or tests conducted by the United States.

At this point, OSI felt that it would be timely to make an evaluation of the Air Force study, its methodology and coverage, the relation of its conclusions to various theories which have been propounded, and to try to reach some conclusion as to the intelligence implications of the

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problem — if any. In view of the wide interest within the Agency, this briefing has been arranged so that we could report on the survey. It must be mentioned that outside knowledge of Agency interest in Flying Saucers carries the risk of making the problem even more serious in the public mind than it already is, which we and Air Force agree must be avoided.

In order to supply both breadth and depth to the survey we have reviewed our own intelligence, going back to the Swedish sightings of 1946; reviewed a large number of individual official reports, recent press and magazine coverage and the main popular books. Indexes of the Soviet press were scanned. We interviewed a representative of Air Force Special Study Group. Following this, we spent a day at Wright Field in a thorough discussion with the officers conducting the AFIC study, and finally we took the problem to a selected group of our own consultants, all leaders in their scientific fields.

From all this, we have come up with facts, theories, explanations and some conclusions, which we will cover in a brief summary of Flying Saucers history, an analysis of the AFIC work, and a discussion of the

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explained sightings and of possible theories regarding the unexplained.

We make no recommendations of action. We would ask that questions be held till the end.

The Saucer furor in this country started in June 1947 when Kenneth Arnold, a reputable business man flying his own plane reported nine discs flying in formation past Mount Rainier at an estimated speed of 1000 miles per hour. This was quickly followed in early July 1947 by reports from a doctor in Phoenix, Arizona, the pilot and co-pilot of a United Air Liner at Boise, Idaho, and field staff members at Muroc Test Base, California. The public was somewhat preconditioned by the earlier Swedish reports of unidentified rockets and the press had a field day. Among the continuing and increasing mass of reports over the months, three further incidents which received wide publicity might be mentioned as they did much not only to maintain interest but also to supply bases for some of the more fantastic theories. In January 1948, an interception was attempted at Godman Field Kentucky and the pilot — Captain Mantell — crashed and was killed. In October 1948, a National Guard fighter pilot at Fargo, North Dakota — Lt. Gorman — coming in after dark spotted a

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moving light below him — also seen from the field — and for twenty minutes put on a dog-fight with it, finally, being outdistanced at 17,000 feet. The third incident occurred in April 1949 at White Sands Proving Ground when a Navy Commander, tracking a missile flight by theodolite, watched two discs maneuvering at high speed around the test rocket. Three such sightings were made at White Sands within a month.

Meanwhile in 1948, Air Force initiated Project Saucer to study the phenomena, issued a preliminary report in April 1949 and in December 1949 released sections of its secret report to the press. The conclusion was that the sightings stemmed from three causes:

1. Mass hysteria
2. Hallucination and hoax
3. Misinterpretation of known objects

This satisfied much of the public but not certain sensational writers.

The resulting highly speculative books and magazine articles combined with continued reports of sightings built up such a resurgence of public interest that Air Force, early in 1951, reopened its study, instituted a world-wide reporting system, and alerted its bases to intercept the

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unidentified objects. Planes had orders not to shoot.

Now, let's examine for a moment what all these people claim to have seen. Grouped broadly as visual, radar, and combined visual and radar, ATIC has two major visual classes — first, spherical or elliptical objects, usually of bright metallic lustre, some small (2 or 3 feet across) most estimated at 100 feet diameter and a few 1000 feet wide. There are variants in this group, such as torpedoes, triangles, pencils, even mattress-shapes. These are all daylight reportings.

The second visual group, all night reporting, consists of lights and various luminosities, such as green, flaming-red or blue-white fire balls, moving points of light, and luminous streamers.

Both categories are reported as single objects, in non-symmetrical groups and in formations of varying numbers.

Reported characteristics include three general levels of speed: hovering; moderate, as with a conventional aircraft; and stupendous, up to 18,000 miles per hour in the White Sands incident. Violent maneuvering was reported in somewhat less than 10%. Accelerations have been given as high as 20 g's. With few exceptions, there has been a

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complete absence of sound or vapor trail. Evasion upon approach is common.

Radar have shown many unidentified "blips" but there is no reported instance of complete tracking in and out of the maximum drum, and no report of a track from station to station. The blip, in almost every case, passed through the center of the scope.

In combined visual and radar sightings, I might mention as illustrations three specific reports.

First, a visual sighting from a plane over Sandy Hook coincident with a blip seen on a ground radar at Fort Monmouth, New Jersey.

Second, a recon Far East report from an aircraft carrier operating between southern Korea and Honshu. Here ships radar reported a high speed target approaching from the north. Observers on the bridge picked it up visually as a plane. When still far out, it did a superspeed 180° turn and shortly thereafter split in two, disappearing both visually and in the PPI scopes.

The third occurred a few days ago at Wright Field and has not yet been fully analyzed. Two F-84's with camera guns were vectored in on

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a blip. Both pilots sighted an object and one locked on with his AI equipment. Reaching his maximum allowable altitude, he triggered his camera and the negative shows "an object."

Since 1947, there have been about 1500 official reports of sightings plus an enormous volume of letters, phone calls and press reports. During this July alone, official reports totalled 250. Of the 1500, ATIC carries 20% as unexplained and of those received since the first of this year, 265. ~~These include letters figures might be reduced to 105 on the basis of more information or further investigation.~~

Now to shift away from Air Force for a moment and into the public domain, there are four major theories in explanation of the Flying Saucer.

First; that it is a U.S. Secret weapon development. This has been denied officially at the highest level of government and to make doubly certain we queried Dr. Eritman, Chairman of the Research and Development Board. On a Top Secret basis, he, too, denies it. However, in the light of the Manhattan District early super security, two factors might be mentioned which tend to confirm the denials - first, the official action of alerting all Air Force commands to intercept, and second, the unbelievable risk aspect of such flights in established air lanes.

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The second theory is that these are a Russian development. Though we know that the Russians have done work on elliptical and delta wing principles, we have absolutely no intelligence of such a technological advance as would be indicated here in either design or energy source. Further, there seems to be no logical reason for the security risk which would be involved and there has been no indication of a reconnaissance pattern. However, it should be mentioned that there is a totally unsupported thesis that this may be a Russian high altitude development of the World War II Jap balloon effort using preset flares and the resulting US press reports to check flight tracks.

The third theory is the man from Mars — space ships — interplanetary travellers. Even though we might admit that intelligent life may exist elsewhere and that space travel is possible, there is no shred of evidence to support this theory at present. There have been no astronomical observations in confirmation — no slightest indication of the orbitting which would probably be necessary — and no tracking. However, it might be noted that Condr. Mc Laughlin (of the White Sands report), a number of General Mills balloon people

and many others are reported to be convinced of this theory.

The fourth major theory is that, now held by the Air Force, that the sightings, given adequate data, can be explained on the basis either of:

Misinterpretation of known objects, or of as yet little understood natural phenomena.

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So much for the history of the problem. [Mr. Eng] will now pick up with an analysis of the Air Force study.